ABSTRACT

An electric power steering device changes the non-continuous, non-linear component in the duty ratio of the PWM signal versus motor current generated during steering wheel handle return into linear characteristics to suppress noise and allow a smooth and natural feeling during steering wheel handling. The electric control circuit(13) provided a current reference value calculator (22A) to calculate I_{ref}, a current controller (22B) to obtain V_{ref2}, a compensation adder (25) to obtain a duty D1, and a current discontinuity compensator (24) in order to obtain a duty D2. A motor drive circuit (35) including an H bridge circuit whose upper stage FET (1) is driven by the duty D1, and whose lower stage FED (3) paired with the upper stage FET (1), is driven by the duty D2 to allow forming a continuous linear duty ratio characteristic in the duty ratio of the PWM signal versus the motor current.